Data to collect for analysis.

1) Spatial data
    a. Map of community, preferably indicating land usage and direction
    b. Topographical map of the area to assess siting issues. If vegetation information is available this is also helpful, specifically relating to cleared land and height of local vegetation.

Locations with existing diesel or other power facilities

2) Billing records for current residents
    a. Full year of monthly data
    b. Single month for the years where data is available – July
3) Community Load Data
    a. "typical day" of hourly recorded energy production from the existing plant. A typical day means that it is a weekday and should not coincide with any festivals or holidays. Data should be recorded hourly in kWh (see spreadsheet)
    b. Daily energy consumption measured as the kWh per day produced by the existing plant. A month of this data would be best although a two-week period is acceptable. Any specific holidays, festivals or loads that would not be considered typical for the community should be noted on the form. (see spreadsheet)
    c. Monthly plant output for a as long as possible.
4) Diesel Plant Data (See sheets)
    a. Size and specification of existing diesel power generators
    b. Amount of diesel fuel used. A fuel curve for the diesel engine would be most appropriate but typical daily, weekly or monthly consumption is adequate.
    c. Diesel dispatching – are there specific times when specific diesels are operated.
    d. How are the diesels dispatched, manually or automatically
    e. Price of power charged to residents
    f. Condition of power plant
    g. Condition of distribution network – Buried or above ground
    h. Staffing. How many people are currently employed by the diesel power station. How much are paid?

5) Community information
    a. Number of residents
    b. Number of houses
    c. Assessment of current or potential electrical consumption of typical homes in the community (see spreadsheet)
    d. Services
        i. School – how many rooms are used
        ii. Health clinic – how many rooms
        iii. Governmental office – how many rooms

iv. Telecommunications towers/relay stations
v. Places of worship
vi. Community water pumping
vii. Street lighting - number and rated power of streetlights – do some stay on all day? What percentage?
viii. Other – describe

e. Businesses
i. Number of shops or stores
ii. Number of restaurants
iii. Light industry – describe
iv. Other – describe

f. Mean household income

6) Resource Data (where applicable)
a. Wind resource data (see sheet for specification and classification)
b. Solar resource data (see sheet for specification and classification)
c. Hydro data (see sheet for specification and classification)
d. Biomass data (see sheet for specification and classification)

7) Component cost and performance data (where applicable) – see pdf sheet.
a. Basic cost of the following equipment. Cost should be broken into component and installation cost.
b. PV Modules
c. Wind Turbines
d. Pico-hydro turbines
e. Diesel engines
f. Diesel fuel cost (delivered to site)
g. Batteries
h. Power converters
i. Shipping costs (either by the kg or truck load)